July-Dec. 1996

NORTH QUEENSLAND NATURALISTS CLUB

EDITION 202

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OBJECTS: The furtherance of the study of the various branches of Natural History and the preservation of our heritage of indigenous flora and fauna.

MEETINGS: Second Tuesday of each month at 8pm at the Cairns Education Centre, Greenslopes Street, Edgehill, Cairns.

FIELD DAYS: Sunday before meeting.

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SUBSCRIPTIONS: (Due September 30th)

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FROM THE EDITOR

THE CASSOWARIES OF MT. WHITFIELD are dead. Gone. Extinct. My belief in Nature Conservation, its Act and the Endangered Species Unit is dead and gone too. It makes me wonder if there is a Wildlife Preservation Scheme? I ask - why wasn't more done for our own cassowaries before it was too late? I hang my head in shame that I personally did not pursue the issue of protection of these magnificent creatures. There are hundreds of questions I'd like to have answered beginning with simply, how and why?

I hear and read reports of cassowaries severely declining in numbers for various reasons, yet still they are not classified as rare and endangered. I have also received reports and photographs of these birds being caught in Departmental Pig Traps and it makes me wonder how many more have recently perished in this manner unbeknown to the public.

Although the viewpoint here is not necessarily that held by the North Queensland Naturalist's, I'm sure that each and every member feels strongly regarding Cairns' recent loss.

The cover of this issue and its leading article by Mike Trennery - I have devoted to the Cassowary. With this particular Mt. Whitfield strain now extinct I wonder if these birds will finally receive the recognition and help they deserve. As Mike points out the bird is an 'icon' of North Queensland's Wet Tropics as the Great Barrier Reef is to Queensland, and every effort should be made to protect it as such.

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OBITUARY FOR MT. WHITFIELD'S CASSOWARIES AND THE BROADER IMPLICATIONS

By: Mike Trenerry

With the tragic passing of what may be Mt. Whitfied's last cassowary, it is important for those people with an interest in wildlife to reflect on this loss. While many species are declining and disappearing from the Cairns district, the local extinction of cassowaries has evoked a strong reaction from North Queenslanders. Folk who have been familiar with individual birds for years are particularly upset.

Essentially the questions being raised are:-

1. What is so special about cassowaries?
2. Why did they disappear from Mt. Whitfield so fast?
3. Are cassowaries declining in other places?

Cassowaries are one of the world's most spectacular and imposing birds. They are easily capable of killing an adult person, but only one death is known from Australia. Although variable in size, the larger females approach 2m in height and 60kg in weight, however there is an early record of a bird that was shot at Behana Creek weighing 86kg. The heaviest Red Kangaroos are slightly less than this, and Emus have a maximum weight of about 55kg. This gives the Southern Cassowary the title of Australia's largest land animal, Australia's largest bird, and the world's second heaviest bird. They are justifiably considered an icon species of North Queensland in the same way that lions symbolise Africa.

Belonging to the Order Struthioniformes (ratites) which flourished in Gondwanaland before it broke apart between 50-100 million years ago, cassowaries are among the most ancient birds on Earth. Other southern land masses besides Australia/New Guinea which long ago rafted away from the supercontinent Gondwanaland with a share of large flightless birds, include South America, Africa, Madagascar and New Zealand. It is assumed that members of the Family Casuariidae have enjoyed a long and colourful evolutionary history in Australia and New Guinea as did the Family Dromaiidae, of which the Emu is the last survivor.

Ecologically, cassowaries are keystone species in the forest where they live. Although they are omnivorous sometimes consuming small animals, carrion and fungi, it is their fruit-dispersing ways which are vital for the maintenance of rainforest diversity and fruiting plant distribution. Fruits from well over 150 species of trees, vines, shrubs and herbaceous plants are eaten and most of the species with large fleshy fruits depend on cassowaries to enhance germination and spread seeds. Many trees with heavy fruits would only be able to disperse downhill - eventually being confined to the bottom of the river valleys, if it were not for cassowaries.

Cassowary family life is particularly interesting. The females are quite liberated, dominating the smaller males which often flee from non-romantic encounters with their feminine counterparts. Female cassowaries are free from the responsibility of incubating eggs and raising the chicks, which is entirely the task of the males. Rather than frolicking off to enjoy the good life or evading the drudgery of child care, it is good management for females not to be lumbered with nurturing after the physiological stress of egg production. After an incubation of two months, chicks spend about nine months under paternal care.

Cassowaries, like many other forest dwelling animals have difficulty crossing large areas which have been denued of trees - especially when these are occupied by dogs and traversed by speeding cars. Why cassowaries died out on Mt. Whitfield is no mystery. The local extinction was predictable and sad to say, could have been averted had sufficient motivation existed. Of the threatening processes that impacted this population, the recent spate of habitat clearance and fragmentation, as well as environmentally harmful development had the most profound effect. Specifically, the upslope spread of residential development and complete habitat alteration experienced with the style and intensity of development in the Brinsmead Valley and White's Gap areas are to blame. The severing of the White's Gap forested corridor and all other potential wildlife corridors, trapped the birds in a shrinking and degrading habitat island. Landscaping with exotic plants of little ecological benefit exacerbated the situation.

Mt. Whitfield's cassowary population was estimated to be as high as between nine and thirteen during the 1990s. This was probably an over-estimate, with actual totals probably closer to six or seven birds declining to two or three by the start of 1995. Whether the carrying capacity of the habitat was so reduced that birds were reduced to accept more and more hand-outs from people than previously, or whether cassowaries simply take what free food is on offer, the humanisation of cassowaries made them vulnerable. It exposed them to confrontations with dogs, traffic and unsympathetic people, especially when they were lured too far from the forest edge. Individual Mt. Whitfield birds may have been fed for as long as 30 to 40 years and this probably served to see them through lean times. Generally it is believed supplementary feeding of cassowaries is to the bird's disadvantage, but apparently there are exceptions.

The Mt. Whitfield situation may be considered a microcosm of the big picture for cassowaries. They are endangered and declining - and the ongoing threatening processes do not appear to be abating. The most northerly Cape York population became extinct during the 1960s or 1970s and the small Iron/McIllwraith Ranges population is poorly documented but is considered vulnerable to extinction. An overwhelming majority of Australia's cassowaries live in the wet tropics region and the commonly espoused population estimate of 1500 birds seems optimistic and generous. Extrapolation of densities and distributions, suggests a lower figure is likely.

The loss and fragmentation of good quality habitat is a serious problem confronting cassowaries. Conversion of their native forest home to agricultural and pastoral land, resorts, residential areas, aquacultural ventures and other developments is continuing in their favoured coastal habitats at an alarming rate.

Unrestrained dogs in areas where cassowaries live have caused many deaths, especially of chicks. North Queensland has too many dogs and not enough cassowaries. In the wet tropics region there are about fifty times as many dogs as cassowaries. Road kills, traditional hunting, birds inadvertently caught in pig traps and birds deliberately killed, have hastened the downward population trend. Competition for food from introduced pigs and disease may have added extra pressure on the cassowaries which survive.

Eventhough cassowaries are large, obvious and active during daylight, they have become so sparsely spread and localized in distribution that seeing wild birds is impossible or very difficult in all but a few localities (eg. near Kuranda and around Mission Beach). Unless a fundamental about-face in attitude takes place, the embarrassing inability of North Queensland to save its cassowaries and other wildlife will continue. We run the risk of being viewed as an environmental backwater just as our heritage is values are receiving international acclaim. Our failure to look after wildlife potentially may diminish the appeal of the region for visitors seeking nature-based experiences. It is too late for Mt. Whitfield cassowaries but we have the means to prevent repeats of this outcome.

The actions needed to secure the future for cassowaries and partly reverse the poor conservation record of this region are straightforward. If the will is strong enough to ensure future developments are more ecologically friendly, with native plants used in landscaping and wildlife corridors retained, many cassowaries can be saved. There is a need to rehabilitate and replant old and potentially new wildlife corridors, control dogs, protect the best habitat, educate people on a range of relevant issues including appropriate human conduct, and also to provide rewards or incentives for those who help cassowaries. It is vital that there is robust community and local government support for such actions, or they will fail.

Cassowaries are indeed animals of outstanding significance. Their imposing stature, key ecological niche, evolutionary history, behaviour, appeal to locals and visitors and their endangered conservation status make them one of the stars of

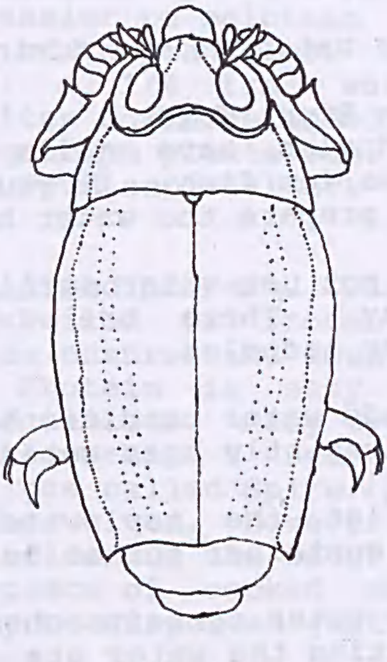
North Queensland's wildlife assemblage. It is our responsibility to make sure these magnificent rarities don't follow the same pathway as Moas, Dodos, Genyornis, The Kangaroo Island Emu and a league of other flightless birds which have become extinct because of people's actions or lack of them.

WHIRLIGIG BEETLES

By: Ross Storey

Whirligig beetles are members of the family Gyrinidae and the 25 Australian species in 4 genera are familiar to most people who have spent any time in the bush. The adult beetles, ranging in size from 4-18mm are common in the wetter areas of the east coast, inland to relatively dry areas when rainfall is sufficient to provide habitat for both adults and larvae. All four genera and at least 16 species occur in the northern and north east coastal areas.

Both larvae and adult whirligigs are aquatic predators. The larvae are elongate and crawl along the bottom of suitable creeks or ponds within their range, feeding on soft bodied prey. They breathe with the aid of feathery gills, found in lateral pairs on each segment of the abdomen. The final instar larvae leave the water to pupate within cacoon when fully grown. The most distinctive thing about an adult whirligig is the habit of swimming in groups in seemingly random circles on the surface of the water. They can, however, dive readily when disturbed and most are excellent fliers allowing for movement between streams when required. They swim in this eratic manner because of their smooth body surfaces, flattened oval shape, paddle-shaped middle and hind legs, and special water reacting chemicals produced by glands at the end of the body. Other interesting adult features are the long fore legs used in grabbing prey (or mates in males) and eyes that are completely divided into a dorsal half and a ventral below-water half. Their short antennae both have minute Johnson's organs which detect movement and thus aid in prey detection.



Macrogyrus paradoxus Regimbart

Whirligig beetles were last studies taxonomically in Australia in 1949 and several undescribed species are known. Next time you are in whirligig country, take time to watch them for a while. Can you see more than one size or type? Maybe, if only they would slow down! Younger potential NATS might like to keep one or two in an aquarium for a while, but they will live longer in nature.

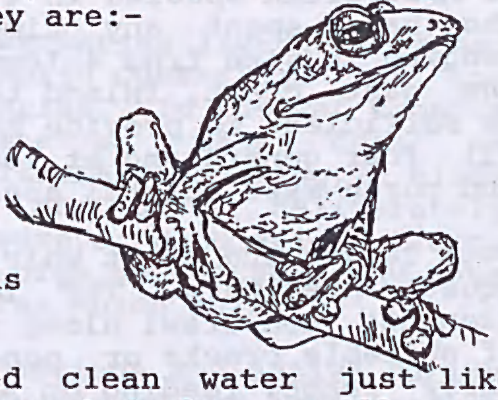
TADPOLES FOR BEGINNERS

By: Deborah Pergolotti

Caring for a few tadpoles and watching them turn into frogs (metamorphose) is a fascinating and rewarding activity for young and old alike. It is also becoming more useful for scientific reasons too because much is still not known about frogs and many species are declining before our very eyes.

Tadpoles are generally easy to keep, but there are some simple guidelines to follow so that your tadpoles will be healthy and change into frogs successfully. They are:-

- clean water
- suitable container
- food
- a watchful eye during metamorphosis



The Right Water

Tadpoles have gills so they need clean water just like aquarium fish. If you plan to get some tadpoles, you'll need to prepare the water before you bring the tadpoles home.

Do not use water straight from the tap! At least not straight away. There are two ways you can prepare the tap water for your tadpoles.

- add water conditioner purchased from an aquarium shop which instantly ages water, or
- let the tap water stand in an uncovered, non-metallic container for at least 3 - 4 days.

Tap water contains chemicals which can kill the tadpoles. Letting the water stand for a few days allows the chemicals to lose their harmful qualities. If you are planning to keep tadpoles it is a good idea to keep a supply of aged water on hand in clean containers.

Once the tadpoles are happily feeding in their new home it is necessary to watch for fouling of the water.

TADPOLES + FOOD + DROPPINGS = AMMONIA

When ammonia builds up in the water, the tadpoles will start looking sluggish. If left in this water the tadpoles will die. Once the water starts to discolour or become cloudy it is necessary to change the water. (Ammonia test kits are also available at aquarium stores). How often the water needs changing depends on the number of tadpoles and the size of the container/tank being used.

When changing the water, gently scoop up the tadpoles using a soft net. Exercise great care in so doing as the skin of the tadpoles if damaged, could result in deformities after metamorphosis.

A Nice Home

The best containers are those which allow you to see the tadpoles and the water clarity and are easy to handle for cleaning. Do not use metal containers or those which have metal on them. The plastic 'pet tanks' available in stores are ideal.

Placing some fallen leaves from a nearby creek bottom on the base of the container will give the tadpoles a place to hide. The algae growing on the leaves also provide food for the tadpoles.

For large tadpoles or those that may take a long time to morph, a proper aquarium setup would be easier to maintain in the long run and allows less handling of the tadpoles. The tank may only need cleaning once a month; a 1/4 tank water change may be done once a week; a filter could be added to assist in keeping the water clean; and aquarium plants can be added to boost oxygen levels and provide food and shelter.

What's for Dinner

Tadpoles should have both plant material and protein. Plant material may be lettuce - which must be boiled or frozen - before giving it to the tadpoles. This ensures the food is non toxic. (Do not use celery leaves). Protein is easy to provide by way of bottom feeder fish food tablets. Many types are available but a good one is Tetra Pleco=Min 5 Star a formula which contains a high protein algae called Spirulina. A small piece of cooked egg yolk may be given, however I recommend this only for time prior to cleaning the water as this and bread foul the water. A small piece of cooked meat or a chicken bone tied to a string may be suspended just at the top of the water.

There should always be some food in the container but don't put in more than the tadpoles will eat in a day or two.

The Critical Time: Metamorphosis

When you see forelimbs appear on your tadpoles they are fast approaching the delicate stage of turning into a frog. When the new frogs leave the water, they will still have a full tail and they can jump. The tail will shrink and be gone within a day or two.

Although most of the tadpoles I've kept simply climb up the side of the tank when they leave the water, not all tadpoles will do this. You should put something in the container so that it's half submersed (a rock or piece of log) so the metamorphs may climb up safely.

Experience is the best teacher when it comes to metamorphs. THE MOST IMPORTANT THING WHEN A METAMORPH EMERGES FROM THE WATER IS THAT IT MUST BE REMOVED FROM THE TADPOLE TANK IMMEDIATELY. Once the new frog has started to use its lungs to breathe, it is often unable to use the gills anymore. If the new frog falls back into the water, it will often drown.

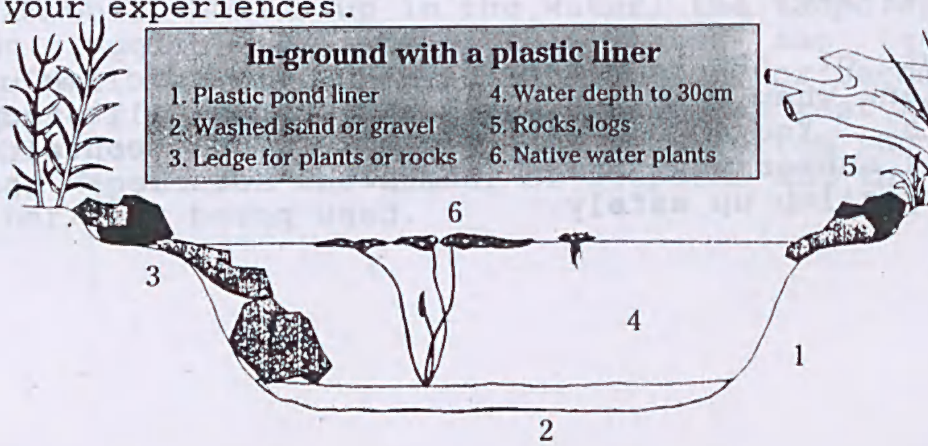
Should you be planning to keep the new frogs for a short time have a small plastic pet tank ready to place the new frogs in. Keep this tank moist for the first few days with a sprayer of aged water and also a jar lid of aged water inside the tank. (The depth of the water should be no more than the frogs height. Add some leaf litter and/or a small piece of bark for the frogs to sleep under. The new frog will not commence eating until the tail has been completely absorbed. Once the tail is gone, trap some tiny flies (such as drysophila = the small red eyed flies seen around rotting fruit) and put them in the tank. A thin cloth stretched under the lid of the tank will keep the flies inside. Build up the frogs' weight for a week and then release them in the same place from where you collected the tadpoles.

Tadpoles and the Authorities

If you are keeping tadpoles and plan to release the frogs within 7 days of metamorphosis, you do not need a licence. You can still keep 2 of the frogs permanently (up to 4 species) without a licence. There is no limit to the number of tadpoles you can have, but it is far easier to maintain healthy tadpoles if you only collect a small number - don't collect every tadpole you see (unless that habitat is about to be destroyed!).

If you plan to keep more than 2 frogs of any species or more than 4 species, you will need to have a licence. Once you apply for a licence, you cannot have any wild caught frogs or tadpoles in your collection. All your frogs and tadpoles must come from other licenced holders and you will be unable to collect any more tadpoles from the wild yourself. Should you wish to apply for a licence contact the Wildlife Section of the Environment Department or contact the author by writing to P.O. Box 2731 Cairns.

The techniques described above are by no means the only way to keep tadpoles. Others have raised tadpoles successfully in old tubs and ponds in the back yard, foam boxes on the veranda or in tanks such as I have described. If you have tried alternative ways with success or difficulties please write to me of your experiences.



FIELD OBSERVATIONS
By: E. Duignan

While sitting in the shade of the Aircraft Hangar on Springmount Station, Dimbulah, where the N.Q. Soaring Club members actively engage in competing with (Wedge-tailed) eagles, I caught site of movement on the ground a little to my right and some distance in front of me. At first I thought it was a sick bug crawling towards the shade and trying to escape the pursuing ants, but upon closer inspection and to my amazement it was a relatively large spider which seemed to be covered in thick black fur.

This in itself was unusual so I put on my reading glasses (I'm sure you'll appreciate the difference in vision if you have the same problem as I) and knelt down to have a good close look. The 'ants' were not in pursuit of a dying spider but were in fact the spiders young and the 'black fur' turned into hundreds of 'young spiders' clinging to the parents body.

Mother spider was not sick either. She was actually moving slowly towards the shade, but at intervals of some eight minutes lowering her abdomen to the ground to allow various 'young' to hop off her body and move freely around, then come back, hop aboard, allowing other tiny spiders to have a turn. I was totally fascinated.

Her body length was approximately 20mm in length by approx. 10mm wide. Her legs fully extended reached to approx. 60mm. She was grey brown in colour and had large front paps.

Unfortunately, I was then called away to assist with a glider takeoff and when I returned she was gone.

A few days later while supposedly Christmas shopping, I was browsing in the bookstore and flicking through a new Nature Book. There to my surprise was a beautiful full colour spread of my spider. (Well - at least I think it was). Her name - Lycosa carolinensis.

The Queensland Naturalist' Club Inc. has recently published its second handbook. SEAWEEDS OF QUEENSLAND. Copies may be obtained directly from the club or from some selected bookshops. Price $15.00 plus $3.00 postage and packing. Should you be interested in obtaining a copy write to the Queensland Naturalist' Club Inc., C/- Dr. P.F. Woodall Department of Anatomical Sciences, The University of Queensland. Q. 4072

A STRAW-NECKED IBIS' DELICACY

By: E. Duignan

On a weekend early in November 1996 while birdwatching at a small watering point or 'turkey nest' as their called in cattle country - some 3km Mt. Molloy side of Mt. Carbine township and relatively disappointed that the hundreds of Diamond Doves had disappeared, I focused my binoculars upon a Straw-necked Ibis in the shallow muddy water at the edge of the 'turkey nest'. While I watched, the Ibis caught a large toad (bufo marinus) and I thought the bird would instantly let it go again.

Not so.

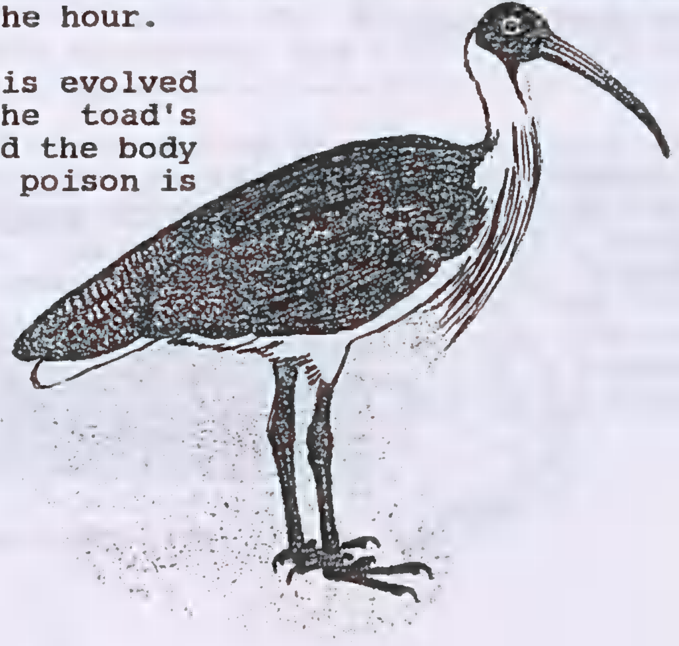
The Straw-necked ibis, holding the toad firmly in its long curving bill, shook the toad vigorously, dropped it in the muddy water, poked it several times, washed it, again picked it up, shook it vigorously, washed it in the water, poked it repeatedly - then started the procedure over again, and again. In fact this continued for at least twenty-five minutes.

Then it was gone! It was eaten! Not just the underbelly or in part - but the whole thing! A very well practiced procedure. The toad had been tossed and swallowed in one swift movement.

The ibis then flew away, so I am unable to advise as to the birds state of health, but on a return visit a couple of weeks later a full search of the area did not reveal an ibis dead or alive.

In relating this unusual event to Mike Trennery of the Department of Environment he informed me that even if the toad's poison had been temporarily excreted from the glands, the whole of the intestines of the cane toad is poisonous. A recent dare by an University student to eat part of a toad's intestine resulted in the fellow being hospitalised to intensive care within the hour.

Has the Straw-necked Ibis evolved a system whereby the toad's toxicity is overcome and the body digested before more poison is produced?



CONSERVATION CHANGES

By: Dawn Magarry

Browsing through an old copy of the 'EMU' a Royal Australian Ornithological Union publication dated 1st January, 1927 (now seventy years ago) Vol. XXVI, the following item caught my eye.

There was considerable discussion being held regarding the spread of prickly pear in grazing areas of southern and central Queensland, and measures under consideration to stem its spread.

Emus, Crows and Scrub Magpies (Pied Currawongs) were to blame according to a report by the Prickly Pear Land Commission.

The following subsidies payable by the commission from 1st February, 1926 the date of the commencement of the scheme were as follows:=

Emus	2/6	per head
Crows	6d	per head
Scrub Magpies	4d	per head
Emu eggs	1/=	each

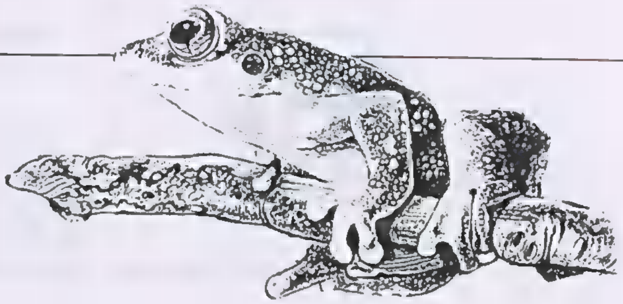
The following figures denote the number of birds destroyed and the bonuses paid from 1st February to 30th June, 1926.

Emus	8441	1055.	2.	6
Crows	10039	250.	19.	6
Scrub Magpies	1154	19.	4.	8
Emu eggs	7117	355.	17.	0
		1681.	3.	8

It would be interesting to calculate what the figures would be in today's currency?

No doubt we are horrified by the misconceptions of the public and their misguided Land Commission of the time. What horrifies me is the fact we still havn't learnt by these mistakes and still destroy our wildlife through land clearing, and misguided actions when we should know better. It's a shame we won't be around in another 70 years to look back and comment 'I told you so'!

Editor



WATCH FOR DISTRESSED WILDLIFE

By: Deborah Pergolotti

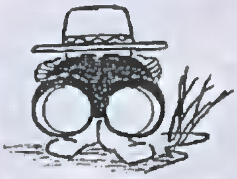
Cairns' population has been growing for some time, but since the government changed hands and Mr. Borbidge took over, development of the region is looming over the area like a tidal wave and will eventually drown and destroy everything in its path. While most of us enjoy living here because of the natural lush tropical environment and plentiful wildlife, our precious wildlife habitats are being bulldozed away before our very eyes.

Some local wildlife carers have noticed a definite increase in calls of assistance coming from residents adjacent and near development sites. So far, it seems there is a direct correlation between development activity and animals being killed nearby. This may be happening because animals relocating from the disturbed sites entering surrounding developed areas and are run over by cars, attacked by domestic dogs and cats or killed by homeowners (snakes are more often the target here).

Queensland already has the most unflattering reputation of having the highest extinction rate in the world. Members would have heard many times already about our declining frogs. Our Far North Queensland coastal wildlife heritage looks like it will go 'down the tubes' and the recent Coalition Government's Environmental Budget shows that our leaders are not only unconcerned about the plight of our dwindling species, they appear to actually despise our wildlife.

With development happening all around us spare a thought for the destruction of wildlife habitat. If you are concerned and can see animals requiring help and/or removal contact the FNQ Wildlife Rescue on 015 962 075. Try to encourage others to keep domestic pets indoors at night so as to minimize panic, injury and death to nocturnal creatures.

If you are concerned about the overall impact of development and habitat destruction, take the initiative and complain to the Cairns Office of the Environment Department and also to the Cairns City Council. At the very least it will be appreciated that not everyone approves of 'progress'.



CHECKLIST OF PLANTS OF 'THE CAIRNS CENTRAL SWAMP'

By: Rob Jago

The following is PART 2 of the full comprehensive list of plants as previously recorded Section by Section commencing in Journal 194. The list is a continuation of the cumuliation of all sections of the Swamp (as depicted in the map provided initially). Part 2 is up to and including all Angiosperms (flowering plants) to the family Passifloraceae. Those with an asterisk preceeding the name are now naturalised species.

Dioscoreaceae							
*Dioscorea alta				D			
Dioscorea bulbifera var. bulbifera		B	C	D		F	
Dioscorea transversa							G
Ebenaceae							
Diospyros compacta		B	C				
Elaeocarpaceae							
Elaeocarpus augustifolia			C	D			G
*Muntingia calabura				D			
Euphorbiaceae							
Aleurites rockinghamensis						F	
Antidesma bunius			C				
Breynia stipitata	A	B	C	D		F	
Claoxylon tenerifilium	A		C	D	E	F	
Cleistanthus apodus	A	B		D		F	G
*Euphorbia hirta				D			
Excoecaria agallocha	A	B	C	D			
Flueggea virosa sobsp. melanthesoides				D			
Glochidion benthamianum				D			
Glochidion harveyanum	A		C	D			G
Glochidion philippicum	A	B	C	D		F	G
Glochidion sumatranum	A	B		D		F	G
Macaranga involucrata var. mallotoides	A	B	C	D		F	G
Macaranga polyadenia	A	B	C				
Macaranga tanarius	A	B	C	D	E	F	G
Mallotus philippensis		B	C	D		F	G
Mallotus polyadenus			C	D			
Omalanthus novo-guineensis	A		C	D		F	
*Pedilanthus tithymaloides				D			
Phyllanthus sp.				D			
Eupomatiaceae							
Eupomatia laurina						F	
Fabaceae							
Abrus precatorius				D		F	
*Aeschynomene indica	A						
*Centrosema pubescens	A		C	D			
*Crotalaria pallida	A				E	F	
Dalbergia densa var. australis			C				

Derris trifoliata	A	B					
*Sesmodium tortuosum				D		F	
Flemingia parviflora				D			
*Macroptilium atropureum	A				E	F	G
*Mucuna bennettii		B		D			
Pongamia sp. = RFK 3295		B	C	D		F	G
*Stylosanthes humilis				D		F	
Vandasina retusa	A	B	C	D	E	F	G
Vigna marina				D			
Flacourtiaceae							
Scolopia braunii	A					F	G
Flagellariaceae							
Flagellaria indica	A	B	C	D	E	F	G
Heliconiaceae							
*Heliconia psittacorum						F	
Hippocrateaceae							
Salacia disepala				D		F	
Icacinaceae							
Gomphandra australiana	A	B				F	
Lamiaceae							
*Hyptis suaveolens				D			
Lauraceae							
Beilschmiedia obtusifolia	A	B	C	D	E	F	G
G Cassytha filiformis				D			
Cryptocarya hyospodia	A	B	C	D		F	G
Cryptocarya murrayi	A	B		D			
Cryptocarya triplinervis var. riparia	A		C	D	E	F	G
Cryptocarya vulgaris	A						
Endiandra hypotephra	A	B		D	E		
Endiandra longipedicellata	A						
Litsea breviumbellata			C	D			
Litsea fawcettiana	A		C	D	E	F	G
Lecythidaceae							
Barringtonia calyptrara				D			
Planchonia careya		B		D			
Lentibulariaceae							
Utricularia sp.	A			D			
Liliaceae							
*Asparagus sp.		B		D		F	
*Asparagus sp.						F	
Crinum pedunculatum	A			D			
Dianella bambusifolia		B	C	D		F	
Dianella caerulea var. vannata				D			
Proiphys amboinensis				D	E	F	G
Tricoryne anceps subsp. pterocaulon				D			

Malvaceae							
Hibiscus tiliaceus	A	B	C	D	E	F	G
Sida cordifolia					E		
*Urena lobata	A	B	C	D	E	F	G
Melastomataceae							
Melastoma affine				D			
Memecylon pauciforum		B	C	D			
Meliaceae							
Dysoxylum gaudichaudianum		B					
Melia azedarach var. australasica	A	B	C	D	E	F	G
Menispermaceae							
Hypserpa laurina				D		F	
Pycnarrhena novoguineensis				D			
Sarcopetalum harveyanum						F	
Stephania japonica			C	D			
Tinospora smilacina	A			D		F	
Mimosaceae							
Acacia aulacocarpa				D			
Acacia crassicarpa			C	D		F	
Acacia flavescens				D			
Acacia holosericea		B	C				G
Acacia mangium	A		C	D		F	
Acacia polystachya			C				
Adenanthera pavonia		B					G
Archidendron grandiflorum	A	B		D			
*Leucaena leucocephala	A	B				F	
*Mimosa pudica	A	B		D	E	F	G
Monimiaceae						F	
Tetrasynandra laxiflora							
Moraceae							
Ficus benjamina	A	B	C	D	E	F	G
Ficus congesta	A	B	C	D	E	F	G
Ficus hispida				D			
Ficus opposita				D		F	
Ficus racemosa				D		F	
Ficus veriegata			C	D			
Ficus virens	A	B	C	D		F	G
Maclura cochinchinensis			C				
Malaisia scandens		B		D	E	F	
Musaceae							
*Musa acuminata	A	B			E	F	G
*Ravenala madagascariensis	A	B	C	D			
Myristicaceae							
Myristica insipida	A	B	C	D			
Myrsinaceae							
Aegiceras corniculatum	A	B	C	D		F	G

*Ardisia solanacea	A	B	C	D	E	F	G
Maesa muelleri						F	
Rapanea variabilis				D			
Myrtaceae							
Acmena hemilampra subsp. hemilampra		B		D	E	F	
Decaspermum humile						F	G
Eucalyptus intermedia		B		D			
Eucalyptus leptophyleba				D			
Eucalyptus tereticornis				D			
Eucalyptus tessellaris				D		F	
*Eugenia uniflora				D			
Lophostemon suaveolens			C	D		F	G
Melaleuca dealbata		B	C	D		F	
Melaleuca luecadendra	A	B	C	D	E	F	G
Melaleuca quinquenervia	A	B	C	D	E	F	G
Melaleuca viridiflora				D		F	
Myrtella obusta				D			
Osbornea octodonta	A						
*Psidium guayava			C	D		F	
Rhodamnia sessiliflora				D		F	G
Rhodomyrtus macrocarpus				D		F	
Syzygium angophoroides	A	B	C	D	E	F	G
Syzygium cormiflorum						F	
Syzygium tierneyanum	A	B	C	D		F	G
Nyctaginaceae							
Pisonia aculeata			C				
Nymphaeceae							
Nymphaea immutabilis subsp. immutabilis				D		F	
Oleaceae							
Chionanthus ramiflorus	A	B	C	D	E	F	G
Jasminum aemulum		B	C	D		F	
Jasminum didymum	A	B		D	E	F	G
Onagraceae							
Ludwigia octovalvis	A	B		D		F	
Orchidaceae							
Dendrobium canaliculatum			C	D			
Dendrobium discolor				D		F	
Dendrobium teretifolium				D		F	
Geodorum densiflorum				D		F	G
Pandanaceae							
Freycinettia scandens				D			
Pandanus solms-laubachii	A	B	C	D	E	F	G
Passifloraceae							
*Passiflora foetida					E	F	
*Passiflora suberosa		B	C	D			

NAT'S NATTER

COMPILED BY NOELA DELL

The past six months have been blessed with excellent weather, which lured many members to join in the many planned activities on the agenda for this second half of 1996. It is pleasing to see our members enjoying the camps and monthly field trips. The camp at Mt. Carbine, a new venue for the club, was well attended and the camping facilities were good. Another new venue, Dimbulah Caravan park also proved a great success as well as the many other camps held during this period these being Tinaroo, Genazzano Centre and Woodlands outside Atherton. Tinaroo Dam has once more filled with water after having been at an all time low since construction in the 1950's.

The field trip to the Department of Primary Industries at Mareeba was extremely worthwhile. A group of 30 members were treated to an excellent video on the Life Cycle of Beetles which included both the Tiger and Seven Spot Lady Beetle. Our host Ross Storey then showed us and talked on the various beetles and insects which were on display. These included, Dung Beetles, Native Bees, Wasps, Cicadas and various Stick Insects. The video microscope was the perfect tool to elaborate on the recent invader of North Queensland - the Papaya Fruit Fly. (More about this in the next issue).

Our thanks to Ross Storey for his time and patience as we indulged in picking his brains on various subjects and to Ceri Pearce for assisting Ross on the day.

We would also like to take this opportunity to congratulate Ross Storey and co-author Paul Zborowski on winning the 'Whitely Award' for the best field guide for the year 1996 - 'A FIELD GUIDE TO INSECTS OF AUSTRALIA'. Ceri's review of the book, published in our last journal (No. 201) enlightened us to their accomplishment. A copy is now available to members from the club's library.

Monthly meeting presentations included Keith and Linsay Fisher's recent trip to Malaysia. Keith's slides depicted some of the many birds and spectacular countryside they saw. Michael Anthony, President of the Cape York Herpetological Society spoke on local snakes, an educational experience in itself let alone his close-up photography of reptiles. The guest speaker in October was Frank Malcolm, an adventurer who rode his bicycle round Australia anti-clockwise for the purpose of taking advantage of prevailing winds. Frank displayed his trusty cycle and some of the equipment and foods carried on the long journey.

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The Club's Annual General Meeting in September was well attended and we are pleased to announce club President Ted Bill has been returned to office for another year. Most other office bearers were returned. We welcome Margaret Howlett as Librarian, and also new member Jim Waite.

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The North Queensland Naturalist Club once again supported the Botanical Gardens Festival by having their display. The theme for this year being 'Dangerous Plants'. Obviously well received by the number of people asking questions and viewing the specimens on show. The microscope was welcomed by both adults and children, hopefully opening up minds to the Wonders of Nature.

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In late September, four club members escorted eight UK birdos on tour in Australia, on a day's birdwatching to the Atherton Tablelands. Visits to Lake Barrine, Hastie's Swamp and Wongabell State Forest produced seventy-two birds, but the highlight for the day was the Lumholtz tree-kangaroo with joey at Wongabell. A stop just outside Mareeba on the way home to see the Banded Plovers also produced a new lifer - the Oriental Plover. It is a pleasure to show our birds to visitors from overseas and we trust they enjoyed their time here.

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A letter from Peter Hopkins was most welcome. Pleased to hear he is enjoying life down south. After a stay on Kangaroo Island, Peter was at Horsham in Victoria but is now back on Kangaroo Island working in a local vineyard and birdwatching of course!

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Another trip to Rokby National Park, Weipa and Lakefield National Park was enjoyed by Ron and Derna Elsdon last June. They are off to Brisbane again via the Western Queensland route to hopefully catch a few 'new' birds along the way. While in Brisbane they will see their new granddaughter and little grandson. We trust they havn't been wasting time in teaching them how to use binoculars.

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Mal and Noela finally made the trip to Lawn Hill National Park in May without any dramas along the way this time. Those who have been fortunate enough to visit the National Park would, I'm sure, agree that it is a magnificent place. A canoe trip through the mountain gorges in the early morning light was a wonderful experience and great for photography. Birdwatching was exciting with new birds to see and these included the White=browed Robin and Purple=crowned Wren. We traveled down the Matilda Highway to Cunnamulla then out to Eulo Bore where we saw the Crested Bellbird but missed seeing a Bourke's Parrot. Chestnut=crowned Babblers, Blue Bonnets and White=winged Fairywrens were added to Noela's list but they'll have to return for that elusive parrot.

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Fraser Island was chosen as the holiday destination in August for Joan Chapman and her sister Jeanette of Melbourne. Jeanette's 4WD vehicle provided the transport from Gympie to a beach front camping location near Eurong Resort and was ideal for exploring the many fresh=water lakes, rainforest and heath areas of the island. Joan and Jeanette found extreme diversity of habitat and wildlife an example being the many Pied Oystercatchers along the beach. An encounter with a Death Adder was not desirable as were the Dingos hovering round the camp.

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During August Dawn and Arnold Magarry visited their son and his family in Mt. Isa enjoying many of the birding hotspots along the way. Clem Watson Park, Lake Moondarra, Mica Creek and Fountain Springs being just a mentionable few. Ninety=one bird species were recorded by them from these areas and included birds like the Black=tailed Treecreeper, Painted Firetails and Varied Loorikeets. Their return trip was via Normanton with overnight camps at Shady Lagoons and Georgetown. On her return Dawn displayed a Trilobite, a fossil given to her by her son which was found in the Mt. Isa area.

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Congratulations are in order for the Jolly family with the marriage in June of Colin and Dulcie's son Alan to Alison.

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Joan and Ken Pocknee are the proud grandparents of their first grandchild Emily May.

Mal and Noela are also proud to announce the arrival of a new grandson Callum Christian. All future Naturalists of course!

Since the preparation of the original transcript for this Journal we have been made aware of recent sightings of still remaining cassowaries on Mt. Whitfield. Numbers and positive identification as well as the authenticity of these reports have yet to be determined.

(EDITOR)

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